UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/819,753	03/29/2001	Wen-Sung Tsai	CEIP0028 USA	2677

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EXAMINER
SHAH, NILESH R

ART UNIT	PAPER NUMBER
2127	

DATE MAILED: 02/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/819,753	TSAI, WEN-SUNG
	Examiner	**Art Unit**
	Nilesh R Shah	2127

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on <u>*29 March 2001*</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>*29 March 2001*</u> is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

    a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.

4)☐ Interview Summary (PTO-413) Paper No(s). _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on

sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 6-9 are rejected under 35 U.S.C. 102(b) as being anticipate by Weber

(6,067,618).

As per claim 1, Weber teaches a computer system comprising:

a processor for executing a program (fig 1 col. 14 lines 55-67) ('A ROM-BIOS 20 also couples

with the CPU 10 and as is well known in the usual PC art, the ROM-BIOS includes self-test and

setup instructions for starting-up the PC hardware')

a main memory for storing programs and data and a memory for storing a basic input / output

system (BIOS), a first operating system, and at least one application program; and a hard disk for

storing a second operating system; (fig 1, col. 6 lines 21-64, col. 7 line 64 –col. 8 line 21, col. 11

lines 60-65, col. 14 lines 55-67) ('All PC systems include a ROM-BIOS. (a Basic Input/Output

System stored in a Read Only Memory integrated circuit on the computer's motherboard). It is

the purpose of the ROM-BIOS to "kick-start" the computer when it is first powered-up. A series

of self-tests mostly involving the motherboard setup, memory check and accessory device

configurations such as the video display, keyboard, mouse and other similar functional needs is

the usual first sequence of steps spent by the ROM-BIOS activity.')

wherein when the computer system is turned on, the BIOS is loaded into the main memory to

perform a system testing process, and then the computer system is capable of choosing to load

the first operating system into the main memory so as to execute the application program stored

in the memory or load the second operating system into the main memory so as to execute the

second operating system, the first operating system being only capable of executing the

application program stored in the memory (fig 1, col. 6 lines 21-64, col. 7 line 64 –col. 8 line 21,

col. 14 lines 55-67) ('A ROM-BIOS 20 also couples with the CPU 10 and as is well known in

the usual PC art, the ROM-BIOS includes self-test and setup instructions for starting-up the PC

hardware') ('In one of its preferred forms my invention is a hardware determined multiple

operating system selection method for use with a quasi-standard "IBM-type" computer system

commonly called a "PC" and typically utilizing an Intel, AMD or Cyrix microprocessor.') ('For

an easy example, assume that hard drive number .0. has Microsoft Windows-95 installed,

together with miscellaneous application programs and games. Concurrently, hard drive number

1 has a version of UNIX (or LINUX) installed, together with UNIX-specific application

programs. The user now has the ability to select between these code-incompatible operating

systems with absolutely no possibility for cross-talk or binary corruption between the operating

systems and any of the operating system's program files.')

As per claim 6, Weber teaches a computer system further comprising a switch for selecting the first operating system or the second operating system. (fig. 1, col. 6 lines 21-64, col. 7 line 64 – col. 8 line 21, col. 14 lines 55-67) ('For an easy example, assume that hard drive number .0. has Microsoft Windows-95 installed, together with miscellaneous application programs and games. Concurrently, hard drive number 1 has a version of UNIX (or LINUX) installed, together with UNIX-specific application programs. The user now has the ability to select between these code-incompatible operating systems with absolutely no possibility for cross-talk or binary corruption between the operating systems and any of the operating system's program files.')

As per claims 7 and 8, Weber teaches a computer system further comprising an input device and a display device for displaying an image picture, wherein the application program is controlled by the input device and the display device (col. 3 lines 15-55, col. 17 line 54- col. 18 line 15, col. 24 lines 5-40) ('A video monitor 414 couples with the computer system which includes an integrated video driver. Also shown is a keyboard 418 attached by a cord 420 to the computer system.')

As per claim 9, Weber teaches a computer system wherein the main memory is a DRAM (fig 1 col. 14 lines 55-67 ('In FIG. 1 I show an overview of a typical personal computer (hereinafter "PC") of the type which suits my invention's application. A microprocessor, CPU 10 couples with a memory 12-1 DRAM bank .0. and a memory 12-2 DRAM bank 1, bidirectionally coupled via a data bus 14 and address bus 16.')

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
>
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
>
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
>
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
>
> manner in which the invention was made.

Claims 2-5 rejected under 35 U.S.C. 103(a) as being unpatentablee over Weber as applied

to claim1 above, and further in view of Gharda (6,009,520).

As per claim 2, Weber teaches a dual operating system as discussed in claim 1 but does not

specifically talk about the use of flash memory

Gharda teaches the use of a computer system wherein the memory is a flash memory for storing

data required by the application program (fig. 1 col. 53 –col. 3 26, col. 6 lines 7-29, col. 8 lines

1-17) ('The non-volatile storage device may be a flash ROM, and erasing involves flash-erasing

the ROM. Use of flash ROM of at least two mega-bits (Mb) is preferred.'). Flash memory is

sued for easy and fast information storage. It would have been obvious to one skilled in the art to add the teachings of Gharda to Weber to ensure the memory is used in the most efficient way.

As per claim 3, Weber teaches a dual operating system as discussed in claim 1 but does not specifically talk about the use of flash memory

Gharda teaches a second operating system is capable of writing data into the flash memory or reading data from the flash memory. (fig. 1 col. 53 –col. 3 26, col. 6 lines 7-29, col. 8 lines 1-17) ('As an analogy, VROM-DVR 101 may be thought of in some respects as acting something like a mini-operating system that would read and write to a hard drive on a computer, except that in this case it is adapted to read from and write to the flash memory in BIOS 100.') Flash memory is sued for easy and fast information storage. It would have been obvious to one skilled in the art to add the teachings of Gharda to Weber to ensure the memory is used in the most efficient way.

As per claim 4, Weber teaches a dual operating system as discussed in claim 1 but does not specifically talk about the use of read- only memory.

Gharda teaches a system wherein the memory is a read-only memory for storing data required by the application program (col. 2 lines 12-35, col. 8 lines 1- 62) ('Value-Added Resellers (VARs) and the like to use extra memory capacity in a ROM chip storing BIOS functions for providing BIOS functions for peripherals, and also other routines, such as, for example, pre-boot security routines.') Read only memory is can only be read from, new data cannot be entered and the

existing data is non-volatile. It would have been obvious to one skilled in the art to add the teachings of Gharda to Weber to ensure that the Read only memory stays at its location even when the power is off. By having this option one can store data in ROM without worrying about it being erased.

As per claim 5, Weber teaches a dual operating system as discussed in claim 1 but does not specifically talk about the use of read- only memory.

Gharda teaches a system wherein when the computer system is executing the second operating system, the second operating system is capable of writing data into the read-only memory or reading data from the read-only memory (col. 2 lines 12-35, col. 8 lines 1- 62) ('The VROM buffer as termed by the inventor must be large enough to store all of the VROM data. Function-3 Read in VROM Data allows a third party calling software to read in VROM data from VROM list area. Function-4 Add/Delete VROM Data allows third party calling software to add or delete VROM data.') Read only memory is can only be read from, new data cannot be entered and the existing data is non-volatile. It would have been obvious to one skilled in the art to add the teachings of Gharda to Weber to ensure that the Read only memory stays at its location even when the power is off. By having this option one can store data in ROM without worrying about it being erased.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Nilesh R Shah whose telephone number is 703-305-8105. The

examiner can normally be reached on Monday-Friday 8am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Meng An can be reached on 703-305-9678. The fax phone number for the

organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is 703-305-3900.

MENG-AL T. AN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

NS

February 4, 2004